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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,870	04/02/2004	Joachim Pakusch	250939US0	9995

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1940 DUKE STREET
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EXAMINER

REDDICK, MARIE L

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/815,870	PAKUSCH ET AL.	
	Examiner	Art Unit	
	Judy M. Reddick	1713	

S.C

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/02/04;08/05/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>04/02/04;08/05/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statements filed 04/02/04 & 08/21/04 have been considered and scanned into the application file.

Specification

3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.

(b) CROSS-REFERENCE TO RELATED APPLICATIONS.

(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.

(d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC

(See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR

1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)

(e) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(f) BRIEF SUMMARY OF THE INVENTION.

(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(h) DETAILED DESCRIPTION OF THE INVENTION.

(i) CLAIM OR CLAIMS (commencing on a separate sheet).

(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recited "spray-drying of an aqueous dispersion of polymer particles with admixing of a hydrophilic and of a hydrophobic antiblocking agent" per claim 1 constitutes indefinite subject matter as per it is not readily ascertainable as to

how the “with admixing of a hydrophilic and of a hydrophobic antiblocking agent” further limits the antecedently recited “spray-drying”. Further, the recited “wherein the spray-drying of the aqueous polymer particle dispersion is carried out in the presence of a hydrophobic antiblocking agent and the polymer powder obtained is homogeneously mixed with a hydrophilic antiblocking agent in a subsequent step” per claim 1 appears to be inconsistent with the former step of “spray-drying”.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pakusch et al(U.S. 6,291,573 B1) in combination with Eck et al(U.S. 6,020,403).

Pakusch et al teach processes for the preparation of polymer powders from aqueous polymer dispersions wherein dispersed polymer comprises i) at least one vinyl aromatic monomer (a) such as styrene, ii) 1,3-butadiene (b) and iii) at least one monomer (c) different from the monomers (a) and (b)(1, 4, 6 & 7, the Abstract, col. 2, lines 23-31, col. 4, lines 10-16) wherein the amount of monomers (a) and (b), as a proportion of the total constituent monomers of the dispersed polymer is preferably in the range of from 80 to 99.5 % by weight, the weight ratio of vinyl aromatic monomer (a) to butadiene (b) being, in particular, in the range of from 3:1 to 1:3 and more preferably in the range from 2.5:1 to 1:1(1, 4, 6 & 7, the paragraph bridging cols. 4-5) wherein said dispersed polymer is governed by a Tg of -50 degrees C to + 50 degrees C(5 & 8-10, col. 5, lines 39-41). Pakusch et al also specifically teaches that in a preferred embodiment, the dispersed polymer is composed of from 25 to 70% by weight, in particular from 50 to 65% by weight, of styrene and/or .alpha.-methylstyrene, from 25 to 70% by weight, in particular from 25 to 50% by weight, of butadiene, and of from 0.5 to 4% by weight of monomers (c1), especially acrylic acid and/or methacrylic acid, from 1 to 3% by weight of monomers (c2), especially acrylamide, methacrylamide, N-methylolacrylamide and/or N-methylolmethacrylamide, and/or from 0.5 to 4% by weight of acrylonitrile and/or methacrylonitrile(col. 5, lines 17-30). Pakusch et al also specifically teach that the polymer powders are prepared by spray drying the aqueous polymer dispersions in the presence of a drying assistant in a drying tower(col. 2, lines 7-64 and col. 3, lines 24-60). Pakusch et al further specifically teach that the use of an anticaking agent such as hydrophilic or hydrophobic silica in an amount of from 0.05 to 10 % by weight wherein said anticaking agent can be metered in prior to or during the drying of the polymer dispersion or is added to the polymer powder in a mixing apparatus(the paragraph bridging cols. 3-4).

It would have been obvious to the skilled artisan to use a mixture of hydrophilic silica and hydrophobic silica, based on their identified equivalency and with a reasonable expectation of success. "It is prima facie obvious to combine two compositions each of which is taught by the

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prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). Processes for preparing water-redispersible powder compositions wherein part of an antiblocking agent(anticaking) such as an aluminum silicate, colloidal silicon dioxide gel, pyrogenic silicon dioxide, a clay, talc, etc.(col. 5, lines 60-65) is fed into an upper part of a dryer simultaneously with an aqueous mixture and the remainder of the antiblocking agent is introduced into the dried powder stream, or the remainder of the antiblocking agent is mixed into the dried powder so as to engender a significant improvement in blocking resistant is known per Eck et al(col. 2, lines 1-27). Therefore, it would have been obvious to the skilled artisan to conduct the spray drying of the aqueous polymer dispersion of Pakusch et al in the manner suggested by Eck et al and overlapping in scope with the claimed spray-drying technique and with a reasonable expectation of success, absent a clear showing of unexpected results commensurate in scope with the claims. Furthermore, the selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results In re Burhans, 154 F.2d 690, 69 USPQ, 330 (CCPA 1946). In re Gibson, 39 F.2d 975, 5 USPQ 230 (CCPA 1930) (Selection of any order of mixing ingredients is prima facie obvious.).

Conclusion

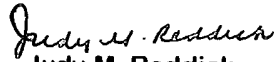
10. The additional prior art, listed on the attached FORM PTO 892 is cited as of being illustrative of the general state of the art.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy M. Reddick whose telephone number is (571)272-1110. The examiner can normally be reached on Monday-Friday, 6:30 a.m.-3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Judy M. Reddick
Primary Examiner
Art Unit 1713

JMR *JMR*
08/21/04